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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/981,476
Filing Date: October 17, 2001
Appellant(s): COLLINS ET AL.

Valerie M. Davis
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed January 30, 2007, appealing from the Office action mailed June 15, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,570,487	Steeves	05-2003
6,549,119	Turner	04-2003
5,294,931	Meier	06-1994
5,850,187	Carrender	12-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

CLAIMS 1, 3 AND 5-14 ARE REJECTED UNDER 35 U.S.C. 103(A) AS BEING UNPATENTABLE OVER **STEEVES (US 6,570,487)** IN VIEW OF **TURNER (US 6,549,119)** AND FURTHER IN VIEW OF **MEIER (US 5,294,931).**

Regarding claim 1, STEEVES teaches a method, as inherently implied by the structure of the apparatus, comprising:

In **figure 3,** a flowchart, in which at step **307** a tag monitors RF activity, reading on "receiving a carrier signal";

and wherein ***column 7, lines 40-44***, Steeves teaches that a tag **151**, normally in a low-power quiescent stand-by state, monitors the RF environment for an activation signal from a reader, as well as a request for data from the reader, which reads on "continuously monitoring the carrier signal for a first predetermined condition", and

wherein receipt of the activation signal and a relevant request for data reads on "a first predetermined condition";

In ***column 8, lines 5-26***, Steeves further teaches a method for determining time slot availability for data transmission from said tag, based upon RF traffic, once a request for data has been determined relevant to a particular tag, which reads on "selecting a channel".

Steeves does not clearly teach a specific method of transmitting data which includes continuously transmitting data on the selected channel and while transmitting data, continuously monitoring the carrier signal for a second predetermined condition; and ceasing the transmitting of data if the second predetermined condition is satisfied during transmitting of data.

TURNER teaches a means for identifying transponders devices, which are well known in the art as being often incorporated into Tag devices for inventory/storage purposes. In ***column 3, lines 47-column 4, line 4***, Turner teaches a tag identification system for transmitting data between a tag and a reader, wherein after a first predetermined condition is met such that a tag is "powered up" and the transmission of data from the tag to the reader is initiated, said tag will continuously send data to a reader device while continuously monitoring the RF environment for an ACK signal *(also, see the flowchart of* ***figure 5****, specifically steps* ***53*** *and* ***54****)*.

In figure 5, the repeated transmission of code data **53** to the reader device until such time that ACK is detected, is interpreted as reading on "*continuously* transmitting data."

While, the detection of said ACK signal is interpreted as reading on "a second predetermined condition".

In **column 3, lines 59-66**, Turner teaches that for every instance that code data **53** is transmitted from the transponder device, the transponder device will check to determine whether the ACK has been detected. The repeated act of checking to determine the detection of the ACK **54** is interpreted as reading on "*continuously* monitoring the carrier signal for a second predetermined condition."

In **column 4, lines 3-5**, Turner further teaches that during the data transmission "loop", once said ACK signal is detected, no further responses/data transmissions are sent to the reader device, thereby reading on "ceasing the transmitting of the data...if the second predetermined condition is satisfied during the transmitting of data..."

The combination of Steeves and Turner fails to clearly teach that the first and second predetermined conditions, i.e., those conditions which cause the initiation and termination of the transmission of data from said tag device to a reader device, may be related to power level thresholds.

MEIER teaches, in **column 2, lines 30-68**, that a plurality of transponders may be individually isolated for data recovery or disqualified from data recovery, as a function of the power level of a received interrogation pulse received from a reader device.

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the methods for isolating tags devices for data transmission as taught by Steeves, Turner and Meier, thereby selectively activating and deactivating

transponders/tag devices for data extraction, as a function of the power level, so as to limit the number of simultaneously produced answer signals during an interrogation.

Regarding claim 3, in Meier's discussion of "Transponder 1", while the power level of the interrogation pulse exceeds the lower power level threshold, i.e. the first predetermined condition is satisfied, it also exceeds the upper power level threshold, i.e., a second predetermined condition is also satisfied. Therefore "Transponder 1" does not transmit data.

Regarding claim 5, In **column 2, lines 30-60**, Meier teaches threshold level for a transponder/tag may vary based upon its' location with respect to the origin of the interrogation pulse, and is therefore interpreted as teaching that the predetermined thresholds are "random".

Regarding claim 6, In **figure 2**, Steeves teaches at least a first device **151** comprising: a receiver **203** for receiving a carrier signal; in **column 7, lines 40-42;** Steeves teaches that the device monitors the RF environment for an activation signal and a *relevant* request for data, reading on "a monitor, coupled to the receiver, for continually monitoring the carrier signal for a first condition and a second condition";

in **column 7, lines 58-64**, Steeves teaches that upon receipt of a request for information from the reader, each device *makes a determination* as to whether the request is relevant to the particular tag and if relevant, the tag *assembles a packet of data* for transmission, which reads on "a storage medium having data stored therein"; and In **figure 2**, Steeves teaches a transmitter **202.**

Steeves does not clearly teach the continuous transmission of at least a portion of data, and further configuring the device to cease the transmission of data when a second condition is satisfied during the transmitting of data.

TURNER teaches, in ***column 3, lines 47-column 4, line 4,*** a tag identification system for transmitting data between a tag and a reader, wherein after a first predetermined condition is met such as a tag is "powered up", and the transmission of data from the tag to the reader is initiated, said tag will continuously send data to a reader device while continuously monitoring the RF environment for an ACK signal *(also, see the flowchart of **figure 5**, specifically steps **53** and **54**)*. Detection of said ACK signal is interpreted as reading on "a second predetermined condition". Turner further teaches that during the data transmission "loop", once said ACK signal is detected, no further responses/data transmissions are sent to the reader device, thereby reading on "ceasing the transmitting of the data...if the second predetermined condition is satisfied during the transmitting of data..."

The combination of Steeves and Turner fails to clearly teach that the first and second predetermined conditions, i.e., those conditions which cause the initiation and termination of the transmission of data from said tag device to a reader device, may be related to power level thresholds.

In **column 2, lines 30-68**, Meier teaches that a plurality of transponders may be individually isolated for data recovery or disqualified from data recovery, as a function of the power level of a received interrogation pulse received from a reader device.

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the methods for isolating tags devices for data transmission as taught by Steeves, Turner and Meier, thereby selectively activating and deactivating transponders/tag devices for data extraction so as to limit the number of simultaneously produced answer signals during an interrogation.

Regarding claim 7, in **column 7, lines 55-56 and lines 64-65**, Steeves teaches that the reader transmits a request to a single tag, to a subset of tags, or to any tag within range...the request may be for all tags corresponding, which reads on "wherein the first and second conditions of a first device are the same as the first and second conditions of a second device.

Regarding claims 8 and 10, **In claim 1, line 3-6**, Meier teaches "...only those transponders which have stored an amount of voltage which falls within their predetermined window, respond". Therefore, in the situation where at least two transponders have identical response windows, Meier teaches that "the first and second devices transmit simultaneously."

Regarding claim 9, Steeves further teaches that in given grouping of activated tags, one or more tags may not correspond to the request for relevancy, thereby reading on "the first and second conditions of a first device are different than the first and second conditions of a second device.

Regarding claim 11, In **column 7, lines 55-67**, Steeves teaches that the nature of the request of relevancy to the tag or tag grouping will vary i.e., not all tags may

correspond to "fresh food crates". Steeves therefore teaches that at least one of the first and second conditions are randomly assigned.

Regarding claim 12, Steeves teaches that more than one device may correspond to the relevancy request, i.e., more than one tag may correspond to "fresh food crates", therefore in the case where tag devices corresponding to a particular category are "uniformly" stored, Steeves then teaches that "the second condition is uniformly distributed."

Regarding claim 13, In **claim 1, line 3-6**, Meier teaches "...only those transponders which have stored an amount of voltage which falls within their predetermined window, respond", thereby reading on "wherein the second condition is satisfied when the received power level exceeds a second threshold."

Regarding claim 14, in ***column 2, lines 33-34***, Turner teaches a continuous RF carrier signal, as claimed.

CLAIM 4 IS REJECTED UNDER 35 U.S.C. 103(A) AS BEING UNPATENTABLE OVER **STEEVES (US 6,570,487)** IN VIEW OF **TURNER (US 6,549,119)** AND FURTHER IN VIEW OF **MEIER (US 5,294,931)** AS APPLIED TO CLAIM 1 ABOVE, AND FURTHER IN VIEW OF **CARRENDER ET AL. (US 5,850,187).**

Regarding claim 4, the combination of Steeves, Turner and Meier does not teach that the first predetermined condition is satisfied when a predetermined synchronization signal is received.

CARRENDER teaches, in **column 10, line 64 – column 11, lines 10,** that in multi-channel systems, such as the system taught by Steeves, where two or more data channels are processed, the use of a synchronization signal is well known in the art.

It would have been obvious for one of ordinary skill in the art at the time of the invention to alter the teachings of Steeves, Turner and Meier, per the teachings of Carrender, for the purpose of synchronizing data collection in the multi-channel data transmission systems.

(10) Response to Argument

i. Appellant begins arguments by attacking the deficiencies of Steeves, Turner and Meier references, individually. Appellant focuses on the deficiencies of the Steeves reference, already acknowledged by the Examiner in the Final Rejection Official action dated 6/15/2006, by arguing that Steeves does not *continuously* monitor the received carrier signal for transmission conditions during data transmission. In response to applicant's arguments against the Steeves reference individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The Examiner agrees that Steeves is deficient in teaching those specific limitations argued by the Appellant. For this reason, the Examiner has relied upon the combined teachings of Turner and

Meier as curing the deficiencies of Steeves. The following response to arguments will pertain more specifically to the disclosure of Turner and its teachings of those claim limitations recited in Claim 1 and 6, argued by the Appellant and acknowledged by the Examiner as being deficient from the disclosures of Steeves and Meier.

ii. The Appellant argues that Turner fails to teach a method that monitors predetermined conditions *during* packet or code transmission, citing that Turner teaches transmitting full packet or code before evaluating any other conditions. Which is in contrast to the Appellant's method which allows data transmissions to immediately cease at any point during packet transmission, even after partial transmission. In response to Appellant's argument that Turner fails to show these certain features of the Appellant's invention, it is noted that the features upon which the appellant relies (i.e., allowing data transmissions to immediately cease at any point during packet transmission, even after partial transmission) **are not recited in the rejected claim(s).** Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

iii. The Examiner has considered the Appellant's argument that the immediate invention has no gaps in data transmission to wait for start delays, clear channels, or acknowledgement signals as taught by [Steeves and] Turner, and

therefore, Turner does not *continuously* transmit data once the first condition is satisfied. The Appellant's argument is not persuasive. The Appellant has offered an unreasonably narrow interpretation of "*continuously* transmitting". Since Turner teaches a Flow chart in **Figure 5**, wherein a transmission loop yields the repeated transmission of code **53** absent the ACK signal (second predetermined condition), said repeated transmission of code, satisfies the "*continuously* transmitted" limitation of the claim. Though the Examiner offers a broader interpretation than that which is suggested by the Appellant, it is held as a fair interpretation of "continuously", since notwithstanding the presence of delays and clock periods, it remains that code data **53** is repetitiously transmitted until the second predetermined condition **54** is satisfied.

iv. The Examiner has considered the Appellant's argument that the Turner device does not *continuously* monitor the carrier signal for a second predetermined condition while it is in the process of transmitting its data. The Appellant's argument is not persuasive. The Examiner believes that the Appellant offers an unreasonably narrow interpretation of "*continuously* monitoring". Considering the flow chart depicted in **figure 5** of the Turner reference, Turner teaches that during the transmission loop, for every instance that the data code is transmitted from the tag device **53,** the tag device will check for ACK signal **54**. For example, in an instance where said code is sent three times, a check for the ACK signal is performed three times, as required by the flow chart. Therefore, by repeatedly

performing the check of the ACK signal during the transmission loop of **figure 5,** the Turner flow chart is interpreted as "*continuously* monitoring" the carrier signal for the second predetermined condition, as required in by the claim.

v. Regarding the Appellant's argument that *Meier's disclosed device will always transmit a fixed duration of information signal and it cannot cease transmitting during data transmission for any reason:* One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The Examiner agrees that Meier is deficient in teaching the above mentioned limitation argued by the Appellant. However, the Meier reference is not relied upon as providing the prior art teaching for said claim limitations. Instead, the Examiner has relied upon the combined teachings of Steeves and Turner as curing the deficiencies of the Meier reference.

vi. Appellant argues that the combined teachings of Steeves, Turner and Meier fails to anticipate the limitations of claim 1, therefore, the rejection of claim 4 under 35 U.S.C. 103(a) (Steeves, Turner, Meier and Carrender) is improper and should be withdrawn. The Examiner is not persuaded as set forth in the above sections of the response sections (i) through (v).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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